

REMARKS

Reconsideration and allowance in view of the foregoing amendments and following remarks are respectfully requested.

Claims 1-18 and 20 are pending in the application. Applicant has amended claims 1 and 10 to clarify the intended meaning.

The Examiner rejected claims 1-18 and 20 under 35 U.S.C. §112, second paragraph, as being indefinite. In regard to claim 1, lines 4-9, the Examiner indicated that it was unclear as to which martensite-austenite transition occurs due to the application of stress; whether from martensite to austenite state, or whether from an austenite to martensite state. Applicant has amended claim 1 to clarify that the latter interpretation was intended. The Examiner further indicates that claim 1 is unclear as to what constitutes the stress, whether the stress is structurally or functionally distinct element from the application of heat. Applicant respectfully submits that the Examiner is erroneously interpreting claim 1 to require a heat element or the application of heat. Claim 1 has no such requirement. The Examiner also indicated that lines 16-20 of claim 1 were unclear in regard to what was meant by “reversible”. Applicant has amended claim 1 to clarify the intended meaning. In addition, the Examiner further indicates that it “is unclear as to whether the system operates constantly above the transition temperature; the conversion from martensite to austenite state, and thus the conversion between the unstressed to stressed states, requiring a change from below to above the transition temperature.” The Examiner asked, “[h]ow can the restoration from martensite to austenite state occur if constantly operating above the transition temperature and never below the transition temperature, in order for the martensite state to occur and for the austenite state to be restored?” The following is an answer to the examiner’s question.

The current invention recognizes the fact that an austenite to martensite transition can be induced by the application of stress, without a change of temperature. This is discussed in several places throughout the specification. (See paragraphs 19 and 28 for a couple of examples of such description in the specification.) Consequently, if the pseudo-elastic material is above the martensite-austenite transition temperature so that it is in an austenite state, the application of stress

can cause portions of it that are under stress to be converted to a martensite state, without there being a need for any change in temperature. This is a stress-induced change, not a temperature-induced change. Consequently, when the stress is removed the material converted to the martensite state will revert to the austenite state since the operating temperature remains above the martensite-austenite transition temperature and there is no longer an applied stress to cause the stress-induced change.

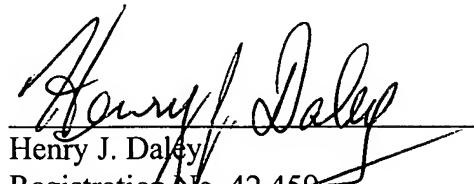
The Examiner similarly rejected claim 10, and claims dependent therefrom, for essentially the same reasons as claim 1. Applicant has amended claim 10 similarly to claim 1 to clarify the intended meaning. Therefore, Applicant respectfully submits that claims 1-18 and 20 are now definite in accordance with 35 U.S.C. §112, second paragraph, and thus respectfully requests that the rejection be withdrawn.

The Examiner rejected claims 1-18 and 20 under 35 U.S.C. §102(b) as being anticipated by Lortz et al. (U.S. Patent No. 5,722,709). Lortz et al. provide no disclosure of stress-induced changes of a pseudo-elastic material from an austenite state to a martensite state, let alone a system for releasably engaging two bodies or a method for engaging and disengaging two bodies using such a structure. Such features recited in base claims 1 and 10 are completely absent from Lortz et al., and all other references of record. Therefore, Applicant respectfully submits that claims 1-18 and 20 are patentable over Lortz et al. and requests that the rejection under 35 U.S.C. §102(b) be withdrawn.

Applicant has addressed all of the Examiner's objections and rejections and respectfully submits that the application is now in condition for allowance.

The Applicant's representative encourages the Examiner to contact him at the below-listed number if it may help expedite the prosecution of this case.

Respectfully submitted,



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